subsea ROV umbilical, AUV tether & sonar tow cable

Buoyant-Slim 4.0mm Micro Tether

Buoyant-Slim 4.0mm Ultralight Tether

TIA-568 / DNV Subsea · 300 V · Subsea rov umbilical, auv tether & sonar tow cable



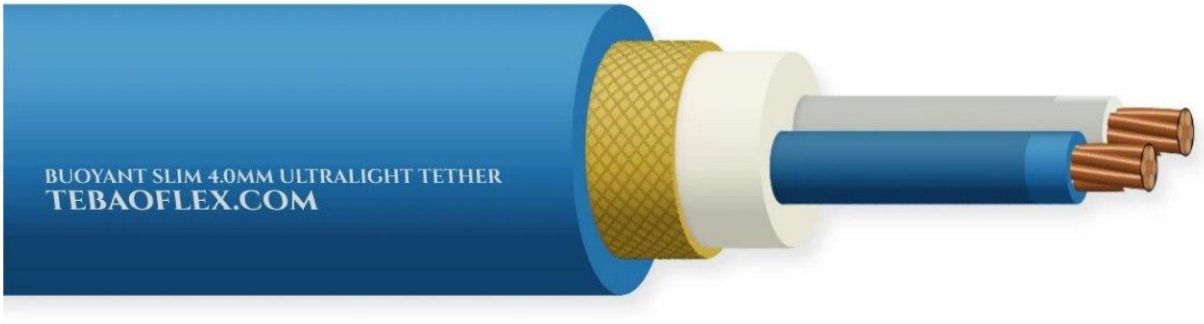
TIA-568 / DNV Subsea | 300 V (-30 to +75 °C) | Subsea / Marine Outer Protective She

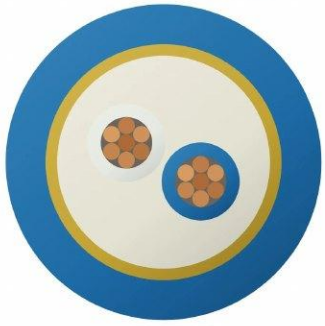
Application

Buoyant-Slim 4.0mm Ultralight Tether featuring stranded copper twisted pairs (2×2) and subsea / marine outer protective sheath (TIA-568 / DNV Subsea, 300 V, -30 to +75 °C, min. bend radius 5 × OD).

Typical uses: Work-Class & Observation ROV Umbilicals and TMS Tethers, Offshore Aquaculture Net Cleaners & Subsea Cage Inspection, AUV, Ocean Glider & Expendable Spool-Payoff Micro-Tethers, USV Towed Sonar Arrays, Seabed Crawlers & Subsea Trenchers

Construction





Cross-section, not to scale

1. Stranded Copper Twisted Pairs (2×2)
2. Aramid / LCP Braided Strength Member
3. Subsea / Marine Outer Protective Sheath

Technical data

Typical values

Rated voltage / operating system	300 V (DNV Subsea Buoyant-Slim 4.0mm Ultralight Aramid Mini-ROV Tether Standard)	**Core / conductor construction**	Stranded Copper Twisted Pairs (2×2) — Twisted pairs with Low-capacitance cellular Foam-Skin PE insulation
Primary dielectric / optical buffer	Aramid / LCP Braided Strength Member — High-tenacity synthetic fiber braid absorbing dynamic tension	**Continuous operating temperature**	−30…+75 °C (submerged seawater & topside deck service)
Hydrostatic & thermal cycling endurance	Verified cold-bend and wet dielectric stability across −30…+75 °C per DNV Subsea Buoyant-Slim 4.0mm Ultralight Aramid Mini-ROV Tether Standard	**Storage & transport temperature**	−40…+80 °C on export wooden/steel cable drum
Outer jacket / sheath protection	Subsea / Marine Outer Protective Sheath — Blue neutrally buoyant cellular foamed Polyurethane (Foamed PUR) outer sheath	**Minimum bending radius**	5 × OD
Reinforcement / screen / bedding layer	Aramid / LCP Braided Strength Member — High-tenacity synthetic fiber braid absorbing dynamic tension	**Seawater, hydrolysis & oil resistance**	Resistant to permanent seawater immersion, hydrolysis, hydraulic oil and bio-fouling per DNV Subsea Buoyant-Slim 4.0mm Ultralight Aramid Mini-ROV Tether Standard
Hydrostatic pressure & water blocking	Radial and longitudinal water-blocking integrity verified per DNV Subsea Buoyant-Slim 4.0mm Ultralight Aramid Mini-ROV Tether Standard	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	DNV Subsea Buoyant-Slim 4.0mm Ultralight Aramid Mini-ROV Tether Standard		

Sizes

3 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Configuration	Core / stranding	Outer Ø ≈ mm	Net weight ≈ kg/km	Max. pulling kN ≈	Min. bend R mm
Buoyant-Slim 4.0mm Micro Tether Construction Schedule (−30…+75 °C) 3 sizes						
☐ **Buoyant-Slim 4.0mm Micro Tether 1×2×22AWG RS-485**	1 × 2 × 0.34 mm² (22 AWG) + Power Pair	Stranded SnCu + Foam PE + Foil/Braid	8.2	92	2.0	50
☐ **Buoyant-Slim 4.0mm Micro Tether 4×2×24AWG Cat5e**	4 × 2 × 24 AWG Subsea Gigabit Ethernet	Stranded SnCu + High-Pressure PE + SF/UTP	9.6	125	3.5	60
☐ **Buoyant-Slim 4.0mm Micro Tether 4×2×23AWG Cat6+2**	4 × 2 × 23 AWG Cat6 + 2 × 1.5 mm² Power	Stranded SnCu + 600-Bar Matrix + PUR	12.8	215	6.8	78

– Custom core counts, optical fiber channels, wet-mate terminations and continuous winch lengths available per DNV Subsea Buoyant-Slim 4.0mm Ultralight Aramid Mini-ROV Tether Standard.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} Ω/km	Rating / Impedance / Load	Operating temp.
1 × 2 × 0.34 mm² (22 AWG) + Power Pair	55.00	300 V (120 Ω RS-485)	−30…+75 °C
4 × 2 × 24 AWG Subsea Gigabit Ethernet	84.00	300 V (100 Ω 1000BASE-T)	−30…+75 °C
4 × 2 × 23 AWG Cat6 + 2 × 1.5 mm² Power	72.00	300 V (100 Ω Cat6 6000m)	−30…+75 °C

– Every production length undergoes routine conductor DC resistance / OTDR optical attenuation, AC dielectric and dimensional verification.

Standards and approvals

- TIA-568 / DNV Subsea Compliant
- EN 10204 3.1 Factory Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

Certifications

Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
+86 185 9591 3361

Email
info@tebaoflex.com

Web
tebaoflex.com/cables/buoyant-slim-4-0mm-ultralight-tether

Typical values for this cable type, based on DNV Subsea Buoyant-Slim 4.0mm Ultralight Aramid Mini-ROV Tether Standard. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.